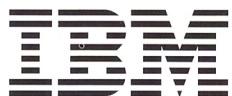


*The complete application server solution—for any size business*



# OS/2® Warp Server Advanced

## Highlights

**Give your users access to files, applications, printers and modems—all from a single LAN server, and all at the same time! Save time and money. All the software you need to introduce network technology to your business is now included in OS/2 Warp Server Advanced.<sup>1</sup>**



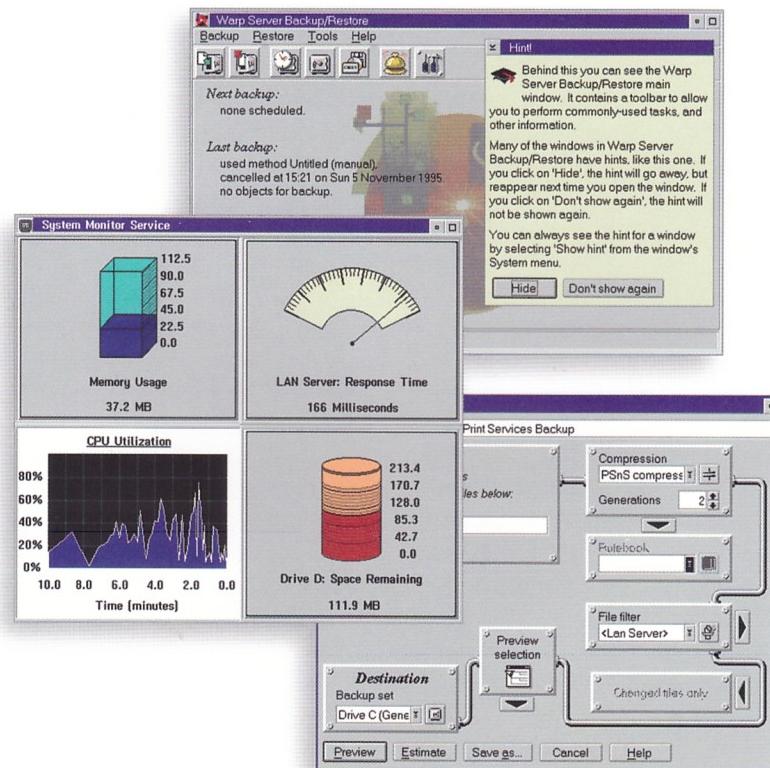
**Choose the services you want on your server using OS/2 Warp Server Advanced's flexible, integrated installation process. Installation can even be performed over a LAN!**

**Use OS/2 Warp Server Advanced's intuitive, graphical user interface to make configuring, administering and managing your network as easy as dragging-and-dropping an icon.**

**Add a new server to your network without worrying about compatibility! OS/2 Warp Server Advanced works with your existing network hardware and software, including Novell® NetWare® and Microsoft® Windows NT™.**

- **Build on the same technology found in one of the industry's leading and most robust application server platforms (IBM OS/2 Warp) and second-most-popular file and print server (IBM OS/2 LAN Server™).**
- **Set user disk limits to prevent "out of disk space" conditions.**
- **Get incredible file-sharing performance for up to 1000 users with the high-performance file system.**

- **Give users full, secure access to your LAN—and all the resources on it—whether working at home, on the road, or at another office location.**
- **Run multiple server applications on a single machine using OS/2 Warp's proven multitasking capabilities.**
- **Provide Internet services to your users, with OS/2 Warp Server Advanced's enhanced TCP/IP support.**



## *OS/2 Warp Server Advanced is the one software server that does it all: application, file, modem and printer sharing, even directory services!*

Whether you're adding a new server to an existing network, or just stepping into the world of client/server computing, IBM has a complete server software solution for virtually any business application. OS/2 Warp Server Advanced includes everything you need to turn an ordinary i486™ (or higher) PC into a file, print and application server, so you can provide comprehensive, compatible networked services to your entire organization.

Since OS/2 Warp Server Advanced works with just about every server and client on the market, your investment in existing hardware and software is safe and secure. It will work transparently with other servers, including those running AIX®, NetWare or Windows NT. And native TCP/IP support means you can make OS/2 Warp Server Advanced a key part of your organization's Internet solution.

### **The perfect foundation for a full-featured, enterprise-wide network**

OS/2 Warp Server Advanced includes a powerful foundation. Its proven OS/2 Warp operating system lets you run multiple applications at the same time. OS/2 Crash Protection™ ensures that your system is safe from crippling application crashes. And the graphical user interface is easy to use and infinitely customizable. These are just a few of the reasons why OS/2 Warp has become a leading application server platform for Intel® microprocessor-based machines. With the addition of the High Performance File System 386, OS/2 Warp Server Advanced supports up to 1000 users per server with outstanding performance.

### **Focus on your business, not on your server**

Once installed, the different networking and systems management services—including resource sharing, backup and recovery, remote connection, advanced

printing and security—run in the background. Together, they can help you increase the productivity of your employees, reduce the cost of managing your client/server network, protect your critical business information and give you absolute control over your information assets.

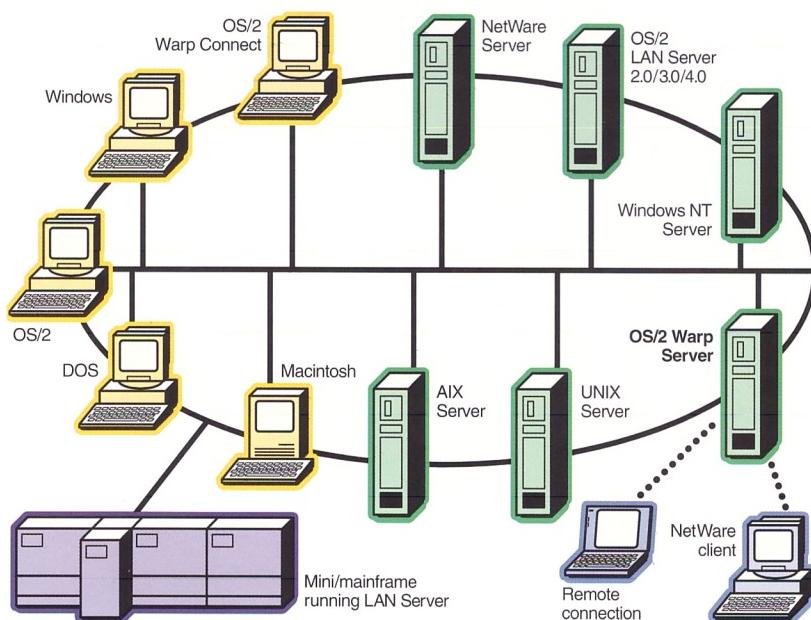
### **Increase employee productivity**

OS/2 Warp Server Advanced helps you increase overall productivity by putting all the resources your employees need—files, printers, peripherals and applications—right at their fingertips. Its remote connection services give users full, secure access to the LAN from home or the road. In addition, OS/2 Warp Server Advanced gives your administrators the ability to proactively diagnose and correct problems with clients or servers on the network. Anytime users have problems with their systems, your administrator can use OS/2 Warp Server Advanced to look directly at their screens and even operate their systems—all without leaving the help desk! There's never been a faster way to get your employees back to work.

### **Reduce your business costs**

As more and more businesses migrate to client/server computing, they're finding that the indirect costs of setting up and maintaining networks can be staggering. OS/2 Warp Server Advanced helps control these unexpected costs by giving you the freedom to choose the most cost-effective systems-management option. You can choose an on-staff administrator, or an outside expert to manage your systems onsite or from a remote location.

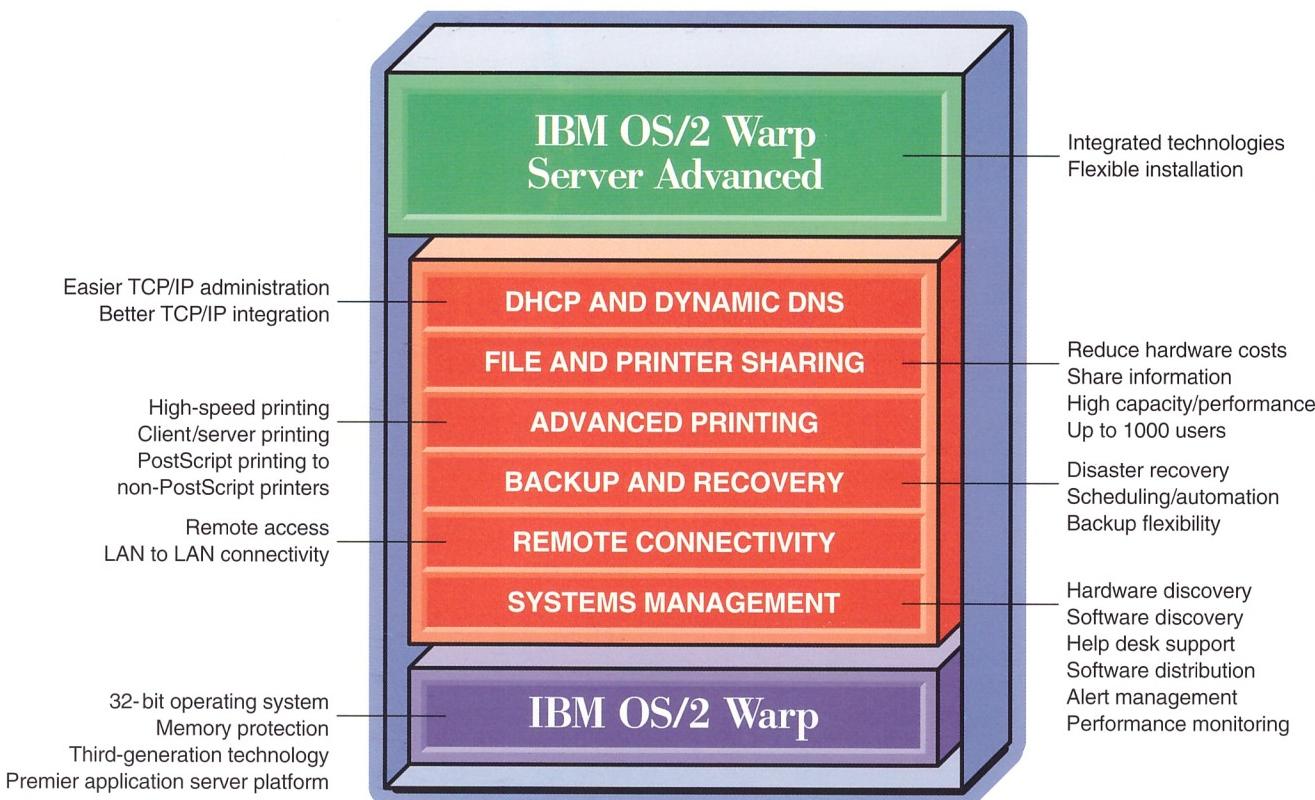
Once installed, OS/2 Warp Server Advanced can provide unparalleled systems-management control. Administrators can get detailed information about any system on the network, right from their desks. They can use OS/2 Warp Server Advanced to track the performance of networked



OS/2 Warp Server Advanced works transparently with virtually every popular client, server and peripheral in the industry.

**OS/2 Warp Server Advanced**

Features	Benefits
<b>Software/hardware auto-discovery</b>	<ul style="list-style-type: none"><li>• Eliminates time-intensive, inaccurate, manual asset inventories; ensures that you're "audit-ready"</li><li>• Reduces costs by providing accurate information for hardware and software upgrades</li></ul>
<b>Unattended software distribution</b>	<ul style="list-style-type: none"><li>• Increases employee productivity by enabling software installations during non-work hours</li><li>• Allows you to keep software licenses up-to-date across your LAN</li></ul>
<b>Remote workstation control</b>	<ul style="list-style-type: none"><li>• Lets you quickly resolve user problems from a remote location by taking over their display, keyboard and mouse</li></ul>
<b>Alert management</b>	<ul style="list-style-type: none"><li>• Reduces LAN downtime with dynamic notification of and response to a LAN problem</li><li>• Extendible to SystemView family</li></ul>
<b>Remote connection services</b>	<ul style="list-style-type: none"><li>• Supports up to 32 concurrent dial-up users (requires additional hardware)</li><li>• Allows mobile users to access the LAN when away from the office, enhancing productivity</li><li>• Supports access to any server (including non-IBM) on the LAN</li></ul>
<b>Disaster recovery</b>	<ul style="list-style-type: none"><li>• Completely recovers all your data—including operating system, applications and personal files</li></ul>
<b>Scheduling</b>	<ul style="list-style-type: none"><li>• Lets you perform backups manually or automatically</li><li>• Backs-up your network when you're not at work—nightly, daily, weekly or monthly</li></ul>
<b>Volume/data management</b>	<ul style="list-style-type: none"><li>• Extendible to ADSM product line; available on IBM and non-IBM minicomputers and mainframes</li></ul>
<b>Bi-directional print monitoring</b>	<ul style="list-style-type: none"><li>• Lets you resolve printer errors without leaving your desk</li><li>• Reduces printer downtime</li><li>• Restarts printer jobs at selected pages</li></ul>
<b>Advanced function print services</b>	<ul style="list-style-type: none"><li>• Supports up to 16 printers simultaneously, ranging in speed from 4 to 300 pages per minute</li><li>• Prints PostScript jobs on non-PostScript printers, even on Advanced Function Printers (AFPs)</li><li>• Extendible to host printers</li></ul>
<b>File and print services</b>	<ul style="list-style-type: none"><li>• Supports up to 1000 users</li><li>• Supports clients on most of the popular platforms available today, including OS/2, DOS and Windows</li><li>• Interoperable with LAN Server for AIX, AIX Connections, LAN Server for MVS and VM, and LAN Server/400</li></ul>
<b>Dynamic Host Configuration Protocol (DHCP)</b>	<ul style="list-style-type: none"><li>• Eases the burden on network administrators by dynamically allocating Internet Protocol (IP) addresses</li><li>• Lets you reuse IP network addresses</li></ul>
<b>Dynamic Domain Name System (DDNS)</b>	<ul style="list-style-type: none"><li>• Simplifies network access, operation and change with dynamic resolution of Internet Protocol (IP) addresses to IP hosts</li></ul>
<b>High Performance File System (HPFS 386)</b>	<ul style="list-style-type: none"><li>• Improves overall system performance by accelerating access to the server's hard disk</li><li>• Offers additional security by optionally requiring local logon at the server</li><li>• Significantly reduces disk fragmentation</li></ul>
<b>Disk fault tolerance</b>	<ul style="list-style-type: none"><li>• Supports disk mirroring and disk duplexing</li><li>• Supports "hot-pluggable" disks in disk arrays</li><li>• Permits mirroring to be activated without formatting the disk drive</li></ul>
<b>Disk limits</b>	<ul style="list-style-type: none"><li>• Prevents system-wide disk access denial by preventing a single user or group of users from filling all volumes</li></ul>
<b>Single logon</b>	<ul style="list-style-type: none"><li>• Allows concurrent access to multiple servers</li><li>• Treats the entire LAN as a single system</li></ul>
<b>Aliases</b>	<ul style="list-style-type: none"><li>• Lets you create nicknames for resources, reducing user errors that result from complex naming conventions</li><li>• Eliminates the need to communicate to users when resources are moved across servers</li></ul>



**Install only the services you want and need.** You can set up OS/2 Warp Server Advanced with as many or as few of its powerful services as you want. The simplified installation process asks straightforward questions to determine your system needs and guides you through the installation process.

systems by setting thresholds for subsystems such as hard disks; if the limits are exceeded, OS/2 Warp Server Advanced will automatically alert the administrator to correct the situation. That means faster response and less downtime for your users. Administrators can also distribute and install software across the network

from a single location. And just about any of these tasks can be scheduled to take place automatically when network traffic is lowest, so work never has to be interrupted.

The advanced printing services give your users access to virtually any type of printer, including PostScript® and

non-PostScript printers, as well as high-speed host printers that handle up to 300 pages per minute. Since OS/2 Warp Server Advanced drives PostScript printers at their rated speeds, throughput is increased and your jobs get done faster. OS/2 Warp Server Advanced can even convert PostScript data into a format that can be output on non-PostScript printers from Hewlett-Packard and Lexmark, consolidating your printing resources and reducing your investment in printers.

### **Backup and recovery services**

As any administrator will tell you, it's not a question of "if" you'll lose data, but "when." Disks crash, data becomes corrupted, users erase the wrong file.

That's why OS/2 Warp Server Advanced includes some of the most powerful and comprehensive backup and recovery services available today. These services make it easy to backup your server to any kind of medium, including tape, optical disks, hard drives or diskettes. Fully automated backups can be scheduled for various intervals, including nightly, daily, weekly or monthly.

OS/2 Warp Server Advanced lets you backup entire hard drives—including the operating system and applications—so in the event of a disaster you can entirely rebuild the server with just a tape and two diskettes. Other servers require you to pre-install the operating system and application software before you can rebuild the server. Most importantly, you can backup to not just your OS/2 Warp Server Advanced, but also an ADSTAR Distributed Storage Manager (ADSM), NetWare Server, or any system on your network, including Hewlett-Packard®, Digital™ or Sun™ machines running UNIX® or OS/2, AIX, OS/400® and MVS® systems.

### **Protect your business information**

More than ever before, organizations are depending on their computers to transact and process vital business information such as sales, finances and personnel records. Your data is the lifeblood of your business. Protecting it is critical.

OS/2 Warp Server Advanced includes tools that allow you to protect your information. Security services let you control access to documents, applications, even entire systems, preventing accidental or intentional damage to any of your important resources. Also included are backup and recovery services that can save your data

## *OS/2 Warp Server Advanced is the complete server solution that can add value to any existing LAN*

applications to—and painlessly recover them from—any kind of medium, including tape, optical disks, hard drives, floppies, LAN aliases, a NetWare server, or DSTAR® hierarchical storage manager (SM). With its powerful backup and recovery services, OS/2 Warp Server Advanced may be your best protection against almost any kind of disaster, from crashes to fires. And fault-tolerance abilities, such as disk mirroring, ensure protection against disk failures.

### **Track and maintain your business assets**

You need to track and maintain your computer systems? OS/2 Warp Server Advanced gives your administrators the ability to get information about clients and servers anywhere on the network. Now administrators can inventory any networked gathering information such as the model and clock-speed of its CPU, the size of its disk drive, even how much RAM it has, without ever leaving their desks or opening the machine's case. Information can be exported directly to a database or Lotus® Notes®, or it can be saved as a text file—no additional software is required! When a system update is needed, it can be performed in a single visit, minimizing or even eliminating any disruption to the user.

The remote management facility also adds to software inventory and license tracking. Administrators can find out which version of software is being used on any computer on the network, ensuring that everyone is using the same version, and that every license is up to date. And all this can be performed without ever interrupting users.

### **The premier application server**

*OS/2 Warp Server Advanced includes OS/2 Warp Version 3, the latest version of IBM's award-winning, proven 32-bit operating system. It combines pre-emptive multitasking with the graphical, object-oriented interface of the Workplace Shell®. That means OS/2 Warp Server Advanced can run multiple applications at the same time, is dependable, and is easy to use.*

*OS/2 Warp runs processor-intensive applications more swiftly, thanks to enhanced memory management. It also features single-click access to your applications through the tool bar, saving you the time and frustration of digging down through menus. Together, the powerful features of OS/2 Warp can make your server more dependable, and more productive.*

### **The ideal platform for other application servers**

*OS/2 Warp Server Advanced is the ideal platform for supporting leading application servers, including those from IBM and third parties. These application servers include databases, communications, Internet, Lotus Notes, messaging and transactions. With OS/2 Warp Server Advanced, the choice is yours!*

*The IBM Directory and Security Services product provides the option of open, standardized directory services from desktops to mainframes, independent of hardware or operating system. And it does it all with Kerberos security.*

	<b>IBM</b>	Microsoft	Novell
File and print sharing	✓	✓	✓
Application server	✓	✓	
Directory services	✓		✓

## **S/2 Warp Server Advanced at a glance**

<b>In topologies supported</b>	Ethernet, Token-Ring, Fiber Distributed Data Interface (FDDI), Asynchronous Transfer Mode (ATM)
<b>In protocols supported</b>	NetBIOS, TCP/IP, IPX/SPX , 802.2
<b>Client platforms supported<sup>2</sup></b>	DOS 6.X, 7.0 OS/2 2.1 or higher OS/2 Warp, OS/2 Warp Connect PC LAN Program (PCLP) 1.34 (Base Service) Windows 3.1 or higher, Windows for Workgroups Windows 95 Windows NT Macintosh (requires IBM OS/2 LAN Server for Macintosh product) AIX (requires AIX client operating system)
<b>System requirements</b>	i486 or Pentium® microprocessor (or compatible) or higher; VGA display (minimum); supported LAN adapter; supported CD-ROM drive for installation; 1.44MB 3.5" diskette drive "A"
<b>Memory requirements<sup>3</sup></b>	16MB minimum (24MB recommended)
<b>Disk space requirements<sup>3</sup></b>	250MB of free hard disk space recommended
<b>Product number</b>	25H8030
<b>Warranty</b>	Three months
<b>Service</b>	Fee-based offerings available; call <b>1 800 992-4777</b> (U.S. and Canada) for details
<b>Additional information</b>	Internet: For more information, see our World-Wide Web Home Page at <a href="http://www.austin.ibm.com/pspinf/">http://www.austin.ibm.com/pspinf/</a> Fax: For additional information on IBM products via fax, call <b>1 800 IBM-4FAX</b> (1 800 426-4329) (U.S.) or <b>1 800 465-3299</b> (Canada). Outside the United States and Canada, please call <b>1 415 855-4329</b> from a fax telephone.
<b>Order</b>	Contact your software provider

## **Advanced systems management services**

OS/2 Warp Server Advanced includes a wide range of SystemView® services, sophisticated systems management capabilities that are usually found only in expensive, add-on software packages. You can use them to proactively manage your networked resources, including any client or server on the LAN. Thresholds, such as maximum disk space, can be set individually for any machine. When exceeded, OS/2 Warp Server Advanced will alert the administrator through a variety of alarms, including paging! And OS/2 Warp Server Advanced's remote management capabilities allow an administrator to manage systems from virtually any location—regardless of whether the administrator is part of your staff at another office, or is an outside contractor at a remote location.



/2 Warp Server consists of the OS/2 Warp operating system plus IBM and other separate working products.

client platforms are supported for file and printer sharing. Additional services vary by client platform.

ditional memory, and more or less hard disk drive space, may be required depending on user installations, user applications, and user data.

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